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TELECOMMUNICATIONS INDUSTRY ASSOCIATION

HAND DELIVERED

November 19, 1998

Magalie Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

RE: Redesignation of the 17.7-19-7 GHz
Frequency Band, Blanket Licensing....
IB Docket No. 98-172
RM-9005 & RM-9818

Dear Ms. Salas:

The Spectrum & Orbit Utilization Section (SOUS) of the Satellite Communications Division of the Telecommunications Industry Association (TIA) hereby submits its comments in response to the above referenced Docket. Included in this filing are nine (9) copies, plus an original.

Should you require any further information, please do not hesitate to contact us.

Very truly yours,

Gerald S. Rosenblatt

Enclosures

cc: FCC Commissioners
International Bureau — Regina M. Keeney, Chief
WTB — Daniel Phythyon Chief
WTB — Tom Stanley Chief, Engineer
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Representing the telecommunications industry in association with the Electronic Industries Association EIA

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Redesignation of the 17.7-19.7 GHz Frequency	)	
Band, Blanket Licensing of Satellite	)	IB Docket No. 98-172
Earth Stations in the 17.7-20.2 GHz and	)	RM-9005
27.5-30.0 GHz Frequency Bands,	)	RM-9818
and the Allocation of Additional Spectrum	)	
in the 17.3-17.8 GHz and 24.75-25.25 GHz	)	
Frequency Bands for Broadcast	)	
Satellite-Service Use	)	

COMMENTS OF THE
SPECTRUM AND ORBIT UTILIZATION SECTION,
SATELLITE COMMUNICATIONS DIVISION OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Telecommunications Industry Association (TIA)[1] Spectrum and Orbit Utilization Section ("TIA-SOUS") of the Satellite Communications Division hereby submits its comments in response to the above-referenced Notice of Proposed Rulemaking ("NPRM"). TIA-SOUS commends the Commission's efforts to resolve the complicated Ka-band spectrum designation and other issues under consideration in this proceeding, and generally supports the need to segment the 18 GHz band between satellite and terrestrial users, adopt blanket licensing for ubiquitous Ka-band Fixed Satellite Service ("FSS") earth stations, and allocate the

[1] The Telecommunications Industry Association ("TIA") is a full-service national organization with membership of over 900 large and small companies which provide communications and information technology products, materials, systems, distribution services and professional services in the United States and countries around the world. TIA represents the telecommunication industry in association with the Electronic Industries Alliance. On occasion, TIA files in its own name, representing the entire association. Sometimes a product-oriented Division or Section of such Division will file in a proceeding representing the views of only the members of that Division or Section. In this instance, the filing is only from the Spectrum and Orbit Utilization Section of the Satellite Communications Division of TIA.

17.3-17.8 GHz band for Broadcast Satellite Service ("BSS"). TIA-SOUS believes that expeditious resolution of these issues is important to ensure the viability and continued development of all affected services.

Fixed Service ("FS") and FSS Cannot Share Spectrum in the 18 GHz band

The Commission is correct in its assessment that sharing between terrestrial and ubiquitously deployed satellite services in the 18 GHz band is currently not feasible. The Commission notes that it would be "impractical for terrestrial FS providers to coordinate new operations to avoid interference" where blanket licensing is permitted.[2] Even without blanket licensing, the mere presence of ubiquitously deployed small satellite earth stations "could have a serious adverse effect on the ability of the terrestrial FS to start a new operation or expand existing operations in a shared band."[3]

Indeed, in a recent filing related to this proceeding, FS licensees emphasized that co-frequency sharing between users in the FS and the FSS currently is not feasible.[4] FS operators have stated that there "is no viable method for private cable operators to share the band with blanket-licensed earth stations that are highly interference-sensitive."[5]

Because TIA-SOUS agrees with the Commission and the FS advocates that sharing in these bands is not feasible, TIA-SOUS believes the Commission should abandon its proposals to modify its band segmentation plan by designating an

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[2] NPRM at ¶ 19.

[3] Id.

[4] See "Emergency Request for Immediate Relief" of The Independent Cable & Telecommunications Association, IB Docket No. 98-172 (filed Nov. 5, 1998) at pp. 5,6. ("CARS Petition").

[5] Id. at (i).

additional 100 MHz of spectrum in the 18.3-18.4 GHz band to be shared on a co-primary basis between terrestrial FS and Geostationary Satellite Orbit ("GSO")/ FSS.[6] Nor should the Commission consider any additional proposals for FS/FSS sharing in these bands as it would only impede the potential for each service to develop fully.

The Commission Should Not Permit Secondary FS Operations in FSS Bands

The Commission's proposal to license FS stations on a secondary basis in satellite spectrum[7] would undercut the Commission's segmentation proposal by reintroducing the cost and delay associated with frequency coordination. Under the Commission's primary band plan, no coordination is required with existing FS users, even if they are grandfathered in a satellite band on a co-primary basis, because the interference is exclusively from FS into a satellite receiver.[8] However, in order to deploy new FS stations on a secondary basis, it would be necessary to establish and maintain a new coordination regime so that FS operators could determine in advance whether secondary operations were possible.[9] Secondary FS use thus takes away the primary benefit of segmentation: elimination of the cost and delay associated with interservice coordination.

Furthermore, the NPRM suggests that secondary FS stations would only be shut down after the user of an installed FSS terminal reported harmful interference

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[6] NPRM at ¶ 35.

[7] NPRM ¶ 33.

[8] The Commission actually proposes that new satellite earth stations be coordinated with existing FS stations, NPRM ¶ 40, but such coordination is unnecessary. Satellite earth stations will not cause interference on the ground, so the FS has no need to know where they are deployed; and the FSS operator can determine for itself whether its FSS earth station will be able to operate at a particular location without harmful interference from grandfathered FS.

[9] Note that this is not true for secondary FSS use of FS spectrum, because FSS is always the victim of interference with FS; never the cause.

that the FS operator could not cure.[10] Given the fact that ubiquitous satellite services will be marketed directly to end users, this description of the process suggests delay much longer than a prospective customer is likely to accept. TIA-SOUS therefore urges the Commission to retract its proposal for secondary FS operations, so that the potential benefits of band segmentation can actually be realized.

TIA-SOUS 18 GHz Band Plan

TIA-SOUS proposes the following band segmentation plan, which it believes offers a more appropriate distribution of spectrum than the plan initially proposed by the Commission:

BSS	FS	GSO FSS	Non-Geostationary Orbit ("NGSO") FSS	MSS F/L and FS
fs[11]	gso fss ngso fss	ngso fss	gso fss	(unchanged)
17.7	17.8	18.3	18.8	19.3 19.7

The 17.7-17.8 GHz portion of the band should be designated for BSS on an exclusive primary basis now, even though certain BSS use restrictions may be needed to accommodate U.S. government operations. Any terrestrial users licensed at 17.7-17.8 GHz after the date of the NPRM should be licensed on a secondary basis only. The secondary FS designation in this band should have a sunset date of April 1, 2007.

The 17.8-18.3 GHz portion of the Ka-band should be designated FS point-to-point links.

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[10] NPRM ¶ 40.

[11] This secondary FS designation would have a sunset date of April 1, 2007.

The 18.3-18.8 GHz portion of the band should be designated for GSO/FSS for ubiquitous earth terminals. To facilitate migration to more appropriate spectrum prior to the sunset date, private cable ("CARS") users in the 18.3-18.58 GHz band should be authorized to utilize the lower CARS band at 13 GHz. The 18.8-19.3 GHz portion of the band should be designated for NGSO/FSS for ubiquitous earth terminals.

The 19.3-19.7 GHz portion of the band should not be changed.

An integral element of this band plan proposal is the assumption that the pfd limit on satellite downlinks at 18.6-18.8 GHz that currently is in place to protect the space science services will be relaxed to a level that allows the successful deployment of ubiquitously deployed small-antenna earth stations.

General Requirements

TIA-SOUS supports the Commission's proposal favoring blanket licensing in the GSO/FSS and NGSO/FSS portions of the Ka-band. It is only the introduction of ubiquitous satellite earth terminals that the promise of new services in this band will unfold.

In its NPRM, the Commission proposes that applicants for blanket earth station licenses apply for a "specified number and type of qualified earth stations." The Commission further proposes that the license term for a blanket authorization coincide with the underlying satellite license.

While there are precedents for the Commission to license a specified number of earth terminals, it is more appropriate in this proceeding for the Commission to embark on a less regulatory approach to blanket licensing. By this approach, the Ka-band licensee will not be unnecessarily burdened by the need to seek further authorizations for a particular model of earth terminal, a process that is costly and causes delay in responding to competition.

There is currently no limit to the number of terminals a licensee may seek by application. Indeed, the Commission has authorized as many as 200,000 terminals to the American Mobile Satellite Corporation for operation in the L-band, and large numbers of terminals for use with the Iridium system. TIA-SOUS urges the Commission to simply issue its blanket licenses for an unspecified number of terminals. By other provisions of its rules, the Commission may track the total number of terminals in use, to the extent such information may be useful or necessary. Accordingly, TIA-SOUS urges the Commission not to adopt a requirement for a fixed number of terminals for blanket licensing Ka-band terminals.

Annual Reporting Requirements

The Commission has proposed that, consistent with its policies for Very Small Aperture Terminals ("VSATs"), Ka-band system licensees report annually the number of earth stations actually brought into service.[12] TIA-SOUS does not object to this proposal. However, TIA-SOUS opposes the Commission's additional proposal to require satellite operators to provide the location of each ubiquitously-deployed satellite earth terminal.[13] Fulfilling this proposed requirement would be burdensome and costly. Maintaining an accurate and up-to-date database of the locations of every earth station could be extremely difficult for some systems and would deny satellite companies some of the cost and efficiency advantages that blanket licensing is intended to provide. It would also force satellite companies to make public confidential and competitively sensitive information.

Blanket Licenses

With regard to the term of blanket licenses, TIA-SOUS suggests that the Commission authorize earth terminals for ten years independently of the associated

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[12] NPRM at ¶ 46.

[13] NPRM at ¶ 44.

satellite license. Linking the two unnecessarily restricts the potential licensing term for the terminals, whereas licensing earth terminals independently provides licensees with flexibility in product development and implementation, especially as the time for satellite license renewal approaches. Put simply, there is really no need to issue a blanket license that is less than ten years in duration.

Satellite licenses are normally issued prior to an associated blanket license for earth terminals used with that satellite. Independently licensing earth terminals could lead to a blanket license that extends beyond the expiration date of the underlying satellite license. This presents no discernible regulatory risk or burden. If for any reason the associated satellite license were not renewed, the blanket licensed earth terminals would be *de jure* inoperable. Absent such an unlikely predicament, there is plainly greater efficiency in not requiring the premature renewal of the blanket license, (i.e., in less than ten years from date of issuance.) For these reasons, TIA-SOUS urges the Commission to adopt a full ten-year license period to its Ka-band blanket licenses.

Antenna Pointing

As the Commission notes in Paragraphs 61-62 in its NPRM, transmit earth station antenna pointing errors of ubiquitous GSO FSS earth stations may result in unacceptable levels of interference to neighboring systems. The Commission proposed several possible methods for preventing or correcting harmful interference due to antenna pointing errors, including (i) requiring installation by approved technicians; (ii) using automatic transmitter identification systems; and (iii) using a pilot tone. Although TIA-SOUS believes that these or other generally accepted industry practices would adequately address transmit earth station antenna pointing concerns, TIA-SOUS does not believe that the Commission should adopt specific pointing requirements in its rules. Instead, the FCC's rules should permit Ka-band

GSO FSS licensees to implement those antenna pointing measures which are best suited to their respective systems, so long as they demonstrate that required technical parameters are satisfied. Ka-band GSO FSS licensees should be permitted to make such a demonstration in the context of applying for a blanket earth station license, and should be permitted to request confidential treatment for this and other proprietary information submitted to the Commission.

Grandfathering

In the NPRM, the Commission proposes to grandfather all existing terrestrial stations in the affected FSS bands on a permanent co-primary basis.[14] This proposal is inconsistent with the premise of the NPRM, which is that "the public interest is best served by *separating terrestrial FS operations from the operations of non-government ubiquitously deployed FSS earth stations.*"[15]

Grandfathering "separates" the services only prospectively, which as a practical matter requires continued co-frequency operation for the foreseeable future. Because the Commission and all interested parties agree that ubiquitous FSS earth stations cannot operate co-frequency with the terrestrial FS, the Commission's grandfathering proposal should include a sunset provision that eventually will permit the ubiquitous deployment of blanket-licensed FSS earth stations.

Allowing grandfathered FS operators to stay in the band indefinitely is fundamentally inconsistent with the Commission's determination that the public interest requires band segmentation, because incumbents need *never* conform their operations to the band plan. Thus, the likely result of permanent grandfathering would be that many FS stations remain in FSS portions of the band for a very long

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[14] NPRM ¶¶ 31, 40.

[15] NPRM ¶ 1 (emphasis added).

time, precluding a significant portion of the public from receiving innovative FSS services – even though the Commission finds it in the public interest for the incumbent to relocate to another band so that the public can have both. Permanent grandfathering therefore frustrates, rather than fosters, the public interest.

Conclusion

TIA-SOUS believes that this proceeding is critical to the development of the Ka-band for satellite services and supports the expeditious resolution of these issues.

Respectfully submitted,

SPECTRUM AND ORBIT UTILIZATION SECTION
SATELLITE COMMUICATIONS DIVISION
TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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